Lyakhnitskiy, V.Ye.

SVIDERSKIY, Pavel Aleksandrovich, professor; LYAKHNITSKIY, V.Ye., doktor tekhnicheskikh nauk, professor, retsenzent; KUNITSKIY, I.A., retsenzent; GERSHKOVICH, M.T., retsenzent; SHAPIROVSKIY, D.B., redaktor; MOROZOVA, I.I., redaktor; GOTLIB, E.M., tekhnicheskiy redaktor.

[Layout and operation of fishing ports and bases] Ustroistvo i ekspluatatsiia rybopromyslovykh portov i baz. Moskva, Pishcheprom-izdat, Pt. 1. 1955. 370 p. (MLRA 9:6)
(Fisheries) (Harbors)

LYAKHNITSKIY, V.Ye.

SIVERTSEV, Ivan Nikolayevich, professor; SMORODINSKIY, Naum Avseyevich, dotsent; SOBOLEV, Nikolay Nikoforovich, dotsent; VAKHARLOVSKIY, Gleb Anatol'yevich, inzhener; SHTENTSEL'V.K., redaktor; LYAKHNITSKIY,V.Ye., professor, doktor mekhanicheskikh nauk, redaktor; VOLCHOK,K.M., tekhnicheskiy redaktor

[Harbor hydraulic structures] Portovye gidrotekhnicheskie sooruzheniia. Leningrad, Izd-vo "Rechnoi transport," Leningradskoe otd-nie. Pt.2. 1955. 387 p. (MLRA 9:3)
(Hydraulic engineering)

LYAKHNITSKIY, Valerian Yevgen'yevich, professor, doktor tekhnicheskikh nauk; SEMENOVA, M.M., redaktor; LAVRENOVA, N.B., tekhnicheskiy redaktor.

[Ports; layout and construction] Port; ustroistvo i stroitel'stvo. Moskva, Izd-vo "Morskoi transport," 1956. 73 p. (MLRA 10:5)
(Harbors)

LYAKHNITSKIY, Valerian Yevgen'yevich, professor, doktor tekhnicheskikh nauk; ILINSKIY, B.A., redaktor; VOLCHOK, K.M., tekhnicheskiy redaktor

[Design of harbors] Proektirovanie portov. Leningrad, Izd-vo "Rechnoi transport," Leningradskoe otd-nie, 1956. 470 p.
(Harbors) (MLRA 9:8)

GORYUNOV, B.F., kandidat tekhnicheskikh nauk; GUDANETS, N.A., kandidat tekhnicheskikh nauk; ZLATOVERKHOVNIKOV, L.F., kandidat tekhnicheskikh nauk; KAGAN, Ya.Kh., kandidat tekhnicheskikh nauk; KRIVOV, A.K., inzhener; KUROCHKIN, S.N., inzhener; LYAKHNITSKIY, V.Ye., doktor tekhnicheskikh nauk, professor; NOVIKOV, A.F., kandidat tekhnicheskikh nauk; ROMASHOV, D.G., inzhener; SHTENTSEL', V.K., kandidat tekhnicheskikh nauk; KUZ'MIN, T.P., redaktor; ZAYTSEV, N.N., redaktor; NELIDOVA, E.S., redaktor izdatel'stva; TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Port hydrotechnical installations; construction and disign] Portovye gidrotekhnicheskie sooruzheniia; konstruirovanie i raschet. Moskva, Izd-vo "Morskoi transport," 1956. 537 p. (MLRA 9:11)
(Harbors)

LYAKHNITSKIY, VALERIAN YEVGEN'YEVICH

LYAKHNITSKIY, Valerian Yevgen'yevich, zasluzhennyy deyatel' nauki i tekhniki, doktor tekhnicheskikh nauk, professor; SHTENTSEL', V.K., red.; VOLCHOK, K.M., tekhn.red.

[Harobrs] Porty. Leningrad, Izd-vo "Rechnoi transport," Leningr. otd-nie, 1957. 431 p. (MIRA 11:3)
(Harbors)

L. YAKHNITSKIY, V.Ye.

BARTENEV, Prokofiy Vasil'yevich, prof., doktor tekhn. nauk; PARFENOV, Viktor Prokhorovich, dots., kand. tekhn. nauk; PODKALINER, S.N., dots., kand. tekhn. nauk; LABAZIN, P.S., dots.; LYAKHNITSKIY, V.Ye., prof., doktor tekhn. nauk, zasluzhennyy deyatel' nauki i tekhniki, red.; SOLOV'YEV, A.F., inzh., red.; TYUMENEV, N.A., inzh., red.; NOVIKOV, A.A., glavnyy marshal aviatsii, red.; TEPLITSKIY, A.V., glavnyy inzn., red.; TSARENKO, A.P., red.; KHITROV, P.A., tekhn. red.

[Water, road, air, and industrial transportation] Vodnyi, avtodorozhnyi, vozdushnyi i promyshlennyi transport. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 303 p. (MIRA 11:10)

1. Leningradskoye otdeleniye instituta proyektirovaniya promyshlennogo transporta (for Teplitskiy).
(Transportation)

LYAKHNITSKIY, V.Ye., doktor tekhn.nauk, prof.

Useful life of loading and unloading equipment on piers. Proizv.-tekh. sbor. no.2:71-75 '59. (MIRA 13:10)

1. Leningradskiy institut vodnogo transporta.
(Harbors—Equipment and supplies)

SEREBRENNIKOV, Veniamin Vasil'yevich; BYKOV, Viktor Vasil'yevich; RUKMAN, Gidaliy L'vovich; VOLOBUYEV, S.Kh., inzh., retsenzent; LYAKHNOVICH, P.D., inzh., retsenzent; MARKOV, A.A., inzh., retsenzent;

[Drainage during the construction and reorganization of mines] Vodootliv pri stroitel'stve i rekonstruktsii shakht. Moskva, Izd-vo "Nedra," 1964. 144 p. (MIRA 17:6)

LYAKHNOVICH, S.

Mechanical method of fumigating grain and grain storages. Muk.-elev.prom.21 no.9:12-13 S '55. (MLRA 8:12)

1. Rostovskaya oblastnaya kontora Zagotzerno
(Grain--Disinfection)

LYAKHNOVICH, V. P.

LYAKHNOVICH, V. P. -- "The Natural Food Base for Fish on the Pond Farms of the Belorussian SSR." Belorussian State U imeni V. I. Lenin. Minsk, 1955. (Dissertation for the Degree of Candidate of Biological Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

LYAKHNOVICH, V.P.

Quantitative computation of zooplankton in fish ponds. Trudy Gidrobiol.ob-va no.6:210-216 '55. (MLRA 8:9)

1. Belorusskoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva.
(Zooplankton) (Fish ponds)

LYAKHNOVICH, V.P.

Biological productivity indices of fish ponds. Trudy Biol. sta. na oz. Naroch' no.1:197-208 '58. (MIRA 12:7)
(Fish ponds) (Fresh-water biology)

SOV/26-59-4-16/43

30(1)

AUTHORS: Vinberg, G.G., Professor, Lyakhnovich, V.P. and Sushchenya, L.M. (Minsk)

TITLE: Biological Investigations on Inland Water Basins of Poland (Biologicheskiye issledovaniya na vnutrennikh vodoyemakh Pol'shi)

PERIODICAL: Prirода, 1959, Nr 4, pp 73-76 (USSR)

ABSTRACT: In this article the authors describe Polish hydrobiological research and experimental stations for inland water basins. Hydrobiological research in Poland is co-ordinated by the Gidrobiologicheskiy komitet (Hydrobiological Committee) headed by Professor M. Bogucki. The war entailed losses of scientists, such as A. Litifeld, etc, and damage to experimental stations. The first research center after the war was the Otdeleniye limnologii i rybnogo khozyaystva vyshchey sel'skokhozyaystvennoy shkoly (Department of Limnology and Fishery of the Agricultural High School) in Wroclaw, headed by Professor

Card 1/3

Biological Investigations on Inland Water Basins in Poland

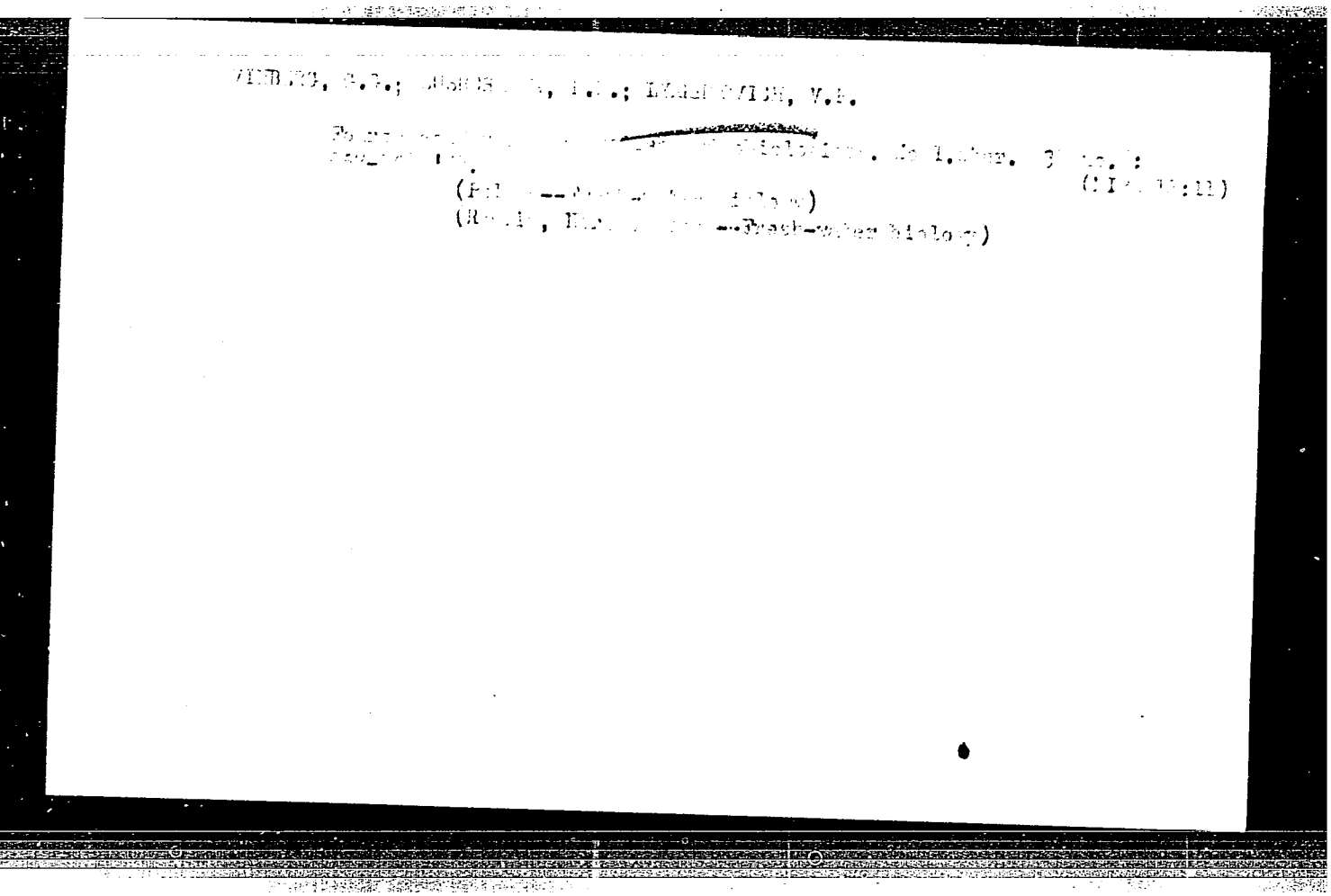
M. Stangenberg. Today the Institut biologii vod Pol'skoy Akademii nauk (Institute of Water Biology of the Polish Academy of Sciences) in Krakow and the Institut rybnogo khozyaystva vnutrennikh vodoyemov (Institute of Inland Water Basins Fishery) in Olsztyn deal with fishery problems. The Institute in Krakow, headed by Professor K. Starmach, is engaged in research on southern Polish water basins. The second Polish research base is the station in Myglniki of the Krakovskaya vysshaya sel'skokhozyaystvennaya shkola (Krakow Higher Agricultural School), situated about 12 km from Krakow, and controlling over 108 experimental ponds, hydrochemical and hydrobiological laboratories, and aquarium, small museum and a library. The experimental station in Zabieniec built in the past few years, possesses a vast water basin area with all possible modern equipment. There is an experimental trout breeding station in Oliva near Gdansk with 14 experimental basins. The Hydrobio-

Card 2/3

Biological Investigations on Inland Water Basins of Poland

logical Station in Gizycko which was organized in 1946 by Docent S. Bernatowicz and is still under supervision, is the base for lake management. The other research center is the Gidrobiologicheskaya stantsiya Instituta eksperimental'noy biologii im. Nentskogo (Hydrobiological Station of the Institute of Experimental Biology imeni Nęcki), headed by A. Szczepański , located near Mikolajka. The Department of this Institute in Warszawa and the Department of Hydrobiology of the Institut ekologii Pol'skoy Akademii nauk (Institute of Ecology of the Polish Academy of Sciences) are engaged in research on inland water basins as well. There are 4 photos.

Card 3/3



LYAKHNOVICH, V.P.

Relationship between the food biomass and fish production in carp ponds. Trudy Gidrobiol. ob-va 11:299-308 '61. (MIRA 15:1)

1. Belorusskiy nauchno-issledovatel'skiy institut rybnogo khozyaystva, Minsk.
(White Russia--Carp) (Fishes--Food)

VINBERG, G.G.; LYAKHNOVICH, V.P.

Hydrobiological methods for studying the productivity of ponds.
Trudy sov. Ikht. kom. no.14:24-29 '62. (MIRA 15:12)

1. Belorusskiy gosudarstvennyy universitet.
(Hydrobiological research)
(Fishponds)

LYAKHNOVICH, YA. P.

LYAKHNOVICH, YA. P. "The Accumulation of Pigments and Changes in the Dimensions of the Chloroplasts in Vegetable crops under closed-ground Conditions with Supplementary Illumination." Belorussian State U imeni V.I. Lenin. Chair of Plant Physiology. Minsk, 1956. (Dissertation for the Degree of Candidate in Biological Science)

So: Knizhnaya Letopis', No. 18, 1956,

I

USSR/Plant Physiology. Photosynthesis

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58177

Author : Shlyk A. A., Godnev T. N., Totfarb R. M., Lyakhnovich Ya. P.

Inst : Institute of Biology, Belorussian SSR

Title : On the Correlation Between the Biosynthesis of Chlorophyll a and Clorophyll b During the Restoration Process

Orig Pub : Byul. In-ta biol., AN BSSR, No 2, 1956, (1957), 59-64

Abstract : Nicotiana alata, Syringa valgaris, and Ceratophyllum demersum plants were kept for a period of 24 hours in an atmosphere containing $C^{14}O_2$. The specific radioactivity of chlorophyll a, purified by double chromatography on glucose and paper, was found to be three times as high as

Card 1/2

USSR/Plant Physiology. Photosynthesis I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58178

Author : Shlyk A. A., Godnev T. N., Lyakhnovich Ya. P., Rotfarb R. M., Yunevich V. I.

Inst : Institute of Biology, Academy of Sciences Belorussian SSR

Title : A Study of the Restoration of Components of Chlorophyll during its Accumulation

Orig Pub : Byul. In-ta biol. AN BSSR, No 2, 1956, (1957) 65-71

Abstract : The investigation of the restoration of chlorophyll in the shoots of Ceratophyllum demersum L. was carried out under conditions of its continued accumulation, with the help of marked atoms. In calculating the relative specific activity of chlorophyll the authors assumed that dicar-

Card 1/2

USSR/Plant Physiology. Photosynthesis I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58178

Abstract : bonic organic acids are the immediate predecessors of chlorophyll. The preliminary data which were obtained point to the greater probability of the hypothesis of the subsequent biosynthesis of chlorophyll b from chlorophyll a, as opposed to the theory of their paralles formation.

Card 2/2

USSR/Plant Physiology. Photosynthesis I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58179

Author : Godnev T. N., Shlyk A. A., Lyakhnovich Ya. P.
Inst : Institute of Biology, Academy of Sciences Belorullian SSR
Title : Concerning the Problem of the Final Stage of Chlorophyll Formation

Orig Pub : Byul In-ta AN BSSR, No 2, 1956 (1957), 79-84

Abstract : Preliminary data on the final stages of chlorophyll formation have been received. A product similar to chlorophyll a is formed when ethylated barley leaves are kept at low temperatures (0 to 0.5°) under noncontinuous illumination. Its maximum absorption is within the 660mu and 402 mu range; from a sulfuric ether the substance is converted into an aqueous alkaline

Card 1/2

USSR/Plant Physiology. Photosynthesis I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58179

Abstract : solution. The following hypothesis of two succeeding stages in the conversion of protochlorophyll into chlorophyll is suggested: 1. protochlorophyll is hydrogenated by the double bond 7-8 to chlorophyllide; 2. the chlorophyllide is ethylated by the phytol.

Card 2/2

USSR/Plant Physiology. Photosynthesis I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58177

Author : Shlyk A. A., Godnev T. N., Totfarb R. M., Lyakhnovich Ya. P.

Inst : Institute of Biology, Belorussian SSR

Title : On the Correlation Between the Biosynthesis of Chlorophyll a and Clorophyll b During the Restoration Process

Orig Pub : Byul. In-ta biol., AN BSSR, No 2, 1956, (1957), 59-64

Abstract : Nicotiana alata, Syringa valgaris, and Ceratophyllium demersum plants were kept for a period of 24 hours in an atmosphere containing $C^{14}O_2$. The specific radioactivity of chlorophyll a, purified by double chromatography on glucose and paper, was found to be three times as high as

Card 1/2

USSR/Plant Physiology. Photosynthesis I

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58177

Abstract : that of chlorophyll b. This difference was retained for some time, a fact which pointed to the absence of a rapid conversion of one chlorophyll into the other in the plant. The distribution of $C^{14}O_2$ in the different parts of the molecules of the two chlorophyll components was basically equal. The somewhat relatively greater activity of the phytol of chlorophyll b can apparently be explained by the slight interchange of the more radioactive phytol of chlorophyll a with the less radioactive phytol of chlorophyll b.

Card 2/2

LYAKHNOVICH YA.P.

USSR/Physiology of Plants - Photosynthesis. I-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10351

Author : Shlyk, A.A., Godneu, T.N., Rotsharb, R.M., Lyakhnovich, Ya.P.

Inst :

Title : A Study of the Biosynthesis of Two Chlorophyll Components in the Process of Restoration.

Orig Pub : Vestsi Akad Nauk BSSR, Ser. Biyal. n., 1956, No 3, 91-94

Abstract : When $C^{14}O_2$ is assimilated in leaves, whether they are separated from the plant (as in tobacco) or not separated (lilac and aquatic plant (Ceratophyllum demersum)), the specific activity of chlorophyll-a (determinable by a B-type device) is approximately three times greater than that of chlorophyll-b. There was no rapid reciprocal conversion of elements of the chlorophyll. Bibliography of eight titles.

Card 1/1

USSR/Plant Physiology. Photosynthesis I-1

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 86605

Author : Godnev T.N., Shlyk A.A., and Lyakhnovich Ya.P.
Inst : Institute of Biology, AS Belorussian SSR
Title : On the Reaction of the Transition of Photochlorophyll to Chlorophyll

Orig Pub : Fiziol. Rasteniy, 4, No 393-396 - 1957

Abstract : Study of spectral properties of the pigment extracted with 0.02 M solution of KOH from the ester extract of 10-day ethiolated leaves of barley after 1-60 minutes of exposure to light at a temperature of -5 to 10 degrees C. Only after short-time exposure to light at reduced temperatures did there form a pigment analogous to chlorophyllide A and with an absorption maximum at 660 millimicrons in the red part of the spectrum and 402 millimicrons in the violet part of the spectrum. According to the authors' hypothesis, the normal predecessor of chlorophyll is monomethyl ester of magnesium-vinyl-pheoporphyrin A5, which undergoes a 2-phase transformation: hydration for double bond 7-8 into chlorophyllide A and

Card : 1/2

SHLYK, A.A.; GODNEV, T.N.; ROTFARB, R.M.; LYAKHNOVICH, Ya.P.

On the particular features of biosynthesis of two chlorophyll components in the process of restoration. Dokl. AN SSSR 113 no.6: 1324-1327 Ap '57. (MLRA 10:6)

1. Akademik Akademii nauk Belorusskoy SSR (for Godnev).
2. Institut biologii Akademii nauk Belorusskoy SSR.
(Chlorophyll)

SHLYK, A.A.; LYAKHNOVICH, Ya.P.; GAPONENKO, V.I.; PRUDNIKOV, I.V.; KALER, V.L.

Relation between the specific activity of chlorophyll a and b during the initial stages of renewal. Biul. Inst. biol. AN BSSR no.5:138-140 '60. (MIRA 14:7)

(CHLOROPHYLL)

SHLYK, A.A.; GAPONENKO, V.I.; PRUDNIKOVA, I.V.; KUKHTENKO, T.V.; LYAKHNOVICH, Ya.P.; KALER, V.L.

Comparative study of the renewal of chlorophyll in different parts of the plant. Fiziol. rast. 7 no.6:625-637 '60. (MIRA 14:1)

1. Laboratory of Biophysics and Isotopes, Byelorussian S.S.R. Academy of Sciences, Minsk.
(Chlorophyll)

BULANOV, P.A., red.; VECHER, A.S., red.; GODNEV, T.N., red.; GONCHARIK, N.M., red.; LYAKHOVICH, Ya.P., red.; MASHTAKOV, S.M., red.; MIRONENKO, A.V., red.; TEREHT'YEV, V.M., red.

[Physiological characteristics of cultivated plants] Fiziologicheskie osobennosti kul'tiviruemykh rastenii. Minsk, Izd-vo "Nauka i tekhnika," 1964. 130 p. (MIRA 17:6)

1. Akademiya navuk BSSR, Minsk. Institut eksperimental'noy botaniki i mikrobiologii.

GODNEV, T.N.; LYAKHNOVICH, Ya.P.

Effect of natural potassium-sodium salt on the growth of Chlorella and its chlorophyll accumulation. Bot. zhur. Bel. otd. VBO no.6:5-11 '64.
(MIRA 18:7)

LYAKHNOVICH, Ya.P.; GODNEV, T.N.

Effect of a short period of heating on the growth of Chlorella and its chlorophyll accumulation. Bot. issl. Bel. otd. VBO no.6:11-18 '64. (MIRA 18:7)

LYAKHOV, A.I., dotsent

Increasing the efficiency of rock breaking through [illegible] using V-shaped stopes. Izv.vys.ucheb.zav.;gor.zhur. 7 no.9:18-21 '64. (MIRA 18:1)

1. Irkutskiy politekhnicheskiy institut. Rekomendovana kafedroy razrabotki mestorozhdeniy poleznykh iskopayemykh.

LYAKHOV, A. I.: Master Tech Sci (diss) -- "Problems of perfecting the working of thin, steeply sloping deposits with hard, stable ore and intrusive rock". Moscow, 1959. 18 pp (Min Higher Educ USSR, Moscow Mining Inst im I. V. Stalin, Chair of the Working of Ore Deposits), 150 copies (KL, No 10, 1959, 126)

Country : USSR
Category: Soil Science Soil Genesis and Geography. J

Abs Jour: RZhBiol., No 14, 1958, No 63019

Author : Afanas'yev, G.V.; Lyakhov, A.I.
Inst : Moscow Agricultural Academy im K. A. Timiryazev
Title : Some Features of Soil Formation in Northern Rayons of the Arkhangel'skya Oblast.

Orig Pub: Dokl. Mosk. s.-kh. akad im K A. Timiryazeva, 1957, vyp. 29, 237-243

Abstract: Results are presented of soil investigations carried out in 1956 in the Kholmogorskiy, Yemetskiy and Vel'skiy rayons of Arkhangel'skaya oblast. The features of podzol soils formed in two-layer deposits are examined -- F N. Sofiyeva

Card : 1/1

USSR/Soil Science - Soil Genesis and Geography J

Abs Jour : Ref Zhur Biol., No 1, 1959, 1330

Author : Afanas'yev, G.V., Lyakhov, A.I.

Inst : Moscow Agricultural Academy im. K.A. Timiryazev

Title : Characteristics of Bottom Land Soils of the Northern Dvina River

Orig Pub : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, vyp. 31, 259-264

Abstract : In bottom lands of the northern Dvina River and its tributaries within Kholmogorskiy and Eletskiy Rayons of Arkhangel'skaya Oblast' there are located stratified alluvial sands (weakly touched by processes of soil formation), turf of diverse textures, and turf-meadow and muck-bog soils. Turf-meadow loam and clay soils predominate. The pH of the soil solution was 5.8 - 6.5;

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USSR/Soil Science - Soil Genesis and Geography

Abs Jour : Ref Zhur Biol., No 1, 1959, 1330

hydrolytic acidity was 0.65 - 1.07 mEq, milliequivalents, saturation of absorbed bases 98 - 98%, humus content 4.1 - 5.7%, P_2O_5 12, K_2O 10.5 - 5.5, N 8.4 mg on 100 g of soil. Characteristic morphology of the soils is also noted. -- L.R. Asmyev

Card 2/2

SOV/118-58-11-4/19

AUTHORS: Kaplunov, R.P., Professor, Doctor of Technical Sciences and Lyakhov, A.I., Engineer

TITLE: Experience in the Mechanization of Stoping in Thin Lodes (Opyt mekhanizatsii ochistnoy vyyëmki v malomoshchnykh zhilakh)

PERIODICAL: Mekhanizatsiya trudoyëmkikh i tyazhëlykh rabot, 1958, Nr 11, pp 16-18 (USSR)

ABSTRACT: A collective body at the Chair of Ore Deposit Exploitation of the Moskovskiy gornyy institut im. I.V. Stalina (Moscow Mining Institute imeni I.V. Stalin) recommended a multi-purpose machine for the drilling of blast-holes, and the transportation to be used in thin steep lodes. The machine, of type BTA-3, consists of two basic parts: a) the winch mounted on a crane, and b) the suspended platform from where the drilling of blast-holes, the charging and the

Card 1/2

Experience in the Mechanization of Stoping in Thin Lodes

supporting of the stoping area are operated.
There are 2 diagrams, 1 photo and 1 table.

1. Ores--Production 2. Mining engineering--USSR 3. Drilling machines--Performance 4. Industrial equipment--Operation

Card 2/2

KAMYNIN, Mikhail Il'ich, kand. sel'khoz. nauk; LYAKHOV, Aleksandr Ivanovich, kand. sel'khoz.nauk; KHMEL'NOY, I.G., nauchnyy red.; GLAZUNOVA, N.I., red. izd-va; NAZAROVA, A.S., tekhn. red.

[Soil maps for collective and state farms] Pochvennye karty v kolkhozakh i sovkhozakh. Moskva, Izd-vo "Znanie," Vses. ob-va po rasprostraneniiu polit. i nauchn. znanii, 1961. 37 p. (Narodnyi universitet kul'tury. Sel'skokhoziaistvennyi fakul'tet, no.8)
(MIRA 14:8)

(Soils—Maps)

OSTAPENKO, A.A., inzh.; LYAKHOV, A.V., inzh.

Using the UP-3 machine in rapid driving of an inclined drift. Shakht. stroi. 7 no.8:21-24 Ag '63. (MIRA 16:11)

1. Kustovaya spetsializirovannaya proyektno-konstruktorskaya gruppa kombinata Donetskugol' (for Ostapenko). 2. Institut gornogo dela AN UkrSSR (for Lyakhov).

S/049/60/000/004/011/018
E032/E314

AUTHOR: Lyakhov, B.M.

TITLE: The Earth's Magnetic Field as the Sum of the Fields of Two Dipoles

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, No. 4, pp. 601 - 606

TEXT: All the papers in the literature, which are concerned with the study of the constant magnetic field of the Earth treat the latter field as being due, on the first approximation, to a uniformly magnetised sphere. Many workers who have studied terrestrial magnetism, calculated the field due to a uniformly magnetised sphere by the Gauss method, and by subtracting this field from the observed Earth's field obtained the so-called residual field. Attempts have also been made to represent the Earth's magnetic field by a single eccentric dipole. The present author considers it useful to look upon the terrestrial field as being due to two dipoles. To check this hypothesis the author has carried out calculations using the formula for the potential due to a single dipole given by Kalinin in Ref. 5 (the first equation on p. 602 of the present paper), where M is the magnetic moment of the dipole, r is the radius of the Earth,

Card 1/3

S/049/60/000/004/011/018
E032/E314

The Earth's Magnetic Field as the Sum of the Fields of Two Dipoles

ρ is the distance from the centre of the Earth to the dipole, φ_o and λ_o are the coordinates of the epicentre of the dipole, ω is the azimuth of the dipole at the epicentral point and φ and λ are the running coordinates. The parameters shown in the table on p. 606 were employed to calculate the charts shown in Figs. 1 to 3 for the X, Y and Z components, where the first column refers to the "East" dipole and the second to the "West" dipole. The maximum in the Z component which is found in Northern Asia is said to have a corresponding "East" dipole, and the maximum in Z in North America is said to be associated with a "West" dipole. The position of the maxima in Z and X suggest that the East dipole is approximately meridional. The fact that there are two maxima in Z in the Northern Hemisphere suggests that the West dipole is not meridional and its projection onto the Earth's surface is at an azimuthal angle of the order of 200 - 210 degs. The charts for 1950 based on this calculation (Figs. 1 to 3) are in a qualitative agreement with observations.

JC

Card 2/3

S/049/60/000/004/011/018
E032/E314

The Earth's Magnetic Field as the Sum of the Fields of Two Dipoles

There are 3 figures, 1 table and 5 references: 2 English and 3 Soviet.

/c

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln (Institute for Terrestrial Magnetism, Ionosphere and the Propagation of Radio Waves)

SUBMITTED: July 2, 1959

Card 3/3

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S/169/61/000/002/001/039
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1961, No. 2, p. 15, # 2A143

AUTHOR: Lyakhov, B. M.

TITLE: The Changeability of the Secular Geomagnetic Variations and the Seismism of the Earth

PERIODICAL: "Tr. N.-i. in-ta zemn. magn., ionosfery i rasprostr. radiovoln", 1959, No. 15 (25), pp. 72-86

TEXT: The author considers the changeability of geomagnetic variations for determining the connection between the seismic and other geophysical phenomena as well as for developing a method of forecasting earthquakes. For each decade from 1900 to 1940, maps of the changeability of the secular course $\delta(\delta\chi)$ of geomagnetic variations are plotted. These maps were compared with the map of the localities of the epicenters of the most severe earthquakes on the globe. The comparison shows that the zones of enhanced seismic intensity, which are related to the most active form of manifestation of tectonic activity, and the zones of $\delta(\delta\chi)$ coincide. A particular close connection was observed between the enhanced changeability of the secular variations of the earth's magnetic field

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S/169/61/000/002/001/039
A005/A001

The Changeability of the Secular Geomagnetic Variations and the Seismism of the Earth

and the distribution of the epicenters of deep-focus earthquakes. The stated connection allows the author to conclude that both phenomena have the same cause. The conclusions are for the present of preliminary and qualitative nature. Further investigations on the basis of the data from observations of a greater number of magnetic stations will make it possible to obtain quantitative data. There are 41 references.

R. Khovanova

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

LYAKHOV, B. M.

The earth is a huge magnet. IUn.tekh. 6 no.1:43-46 Ja '62.
(MIRA 15:2)

1. Uchenyy sekretar' Instituta zemnogo magnetizma, ionosfery i radiovoln AN SSSR.
(Magnetism, Terrestrial)

L 17437-63 EWT(1)/BDS/T-2 AFFTC/ESD-3 Pi-4/Po-4 TF

ACCESSION NR: AP3004017 S/0203/63/003/004/0734/0736

AUTHOR: Iyakhov, B. M.

TITLE: The main magnetic field of the earth 12

65
64

SOURCE: Geomagnetizm i aeronomiya, v. 3, no. 4, 1963, 734-736

TOPIC TAGS: magnetic field, dipole, convection current

ABSTRACT: The earth's main magnetic field is presented as the sum of the fields produced by three eccentrically disposed dipoles. This is done because two obvious anomalies in the main field cannot be explained by the two-dipole theory previously proposed by the author. The epicenter of the third dipole was found near Madagascar. Its azimuth on the earth's surface is about 300° and its distance from the earth's center is about one-fourth of the earth's radius. The parameters of the three dipoles were calculated, and the values obtained were used to plot three charts showing the Z-component, X-component and Y-component of the resulting field. These charts resemble closely the charts of the actual magnetic fields. The reason for the existence of the three dipoles may be explained by the presence of convection currents in ionized matter on the surface of the earth's core. Each of these currents produces a magnetic field. A comparison of the present charts with those

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ACCESSION NR: AP3004017

for 1907 proves that the currents change their positions upon the surface of the core. Orig. art. has: 1 table and 3 charts.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery*, rasprostraneniya radiovoln, AN SSSR (Institute of Earth Magnetism, Ionosphere, and Radio-Wave Distribution, Academy of Sciences, USSR)

SUBMITTED: 22Mar63 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AS NO REF SOV: 001 OTHER: 000

Card 2/2

LYAKHOV, B.M.

Main magnetic field of the earth. Geomag. i aer. 3 no.4:734-736 Jl-Ag '63. (MIRA 16:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

OZEROV, F.I.; LYAKHOV, G.A., inzh., retsenzent; SHAYKEVICH, M.D., inzh., retsenzent; SHISHKIN, G.S., inzh., red.; KHITROVA, N.A., tekhn. red.

[Labor protection and safety measures in materials handling] Okhrana truda i tekhnika bezopasnosti v gruzovom khoziaistve. Moskva, "Transport," 1964. 143 p. (MIRA 17:2)

SAMSONOV, Aleksey Vasil'yevich; LYAKHOV, Gennadiy Aleksandrovich; ORLOVA, I.A., red.

[Labor safety in railroad traffic operations] Okhrana truda v khoziaistve dvizheniia zheleznykh dorog. Moskva, Transport, 1965. 182 p. (MIRA 18:10)

SOV/179-59-1-6/36

AUTHOR: Lyakhov, G. M. (Moscow)

TITLE: Shock Waves in a Composite Medium (Udarnyye volny v mnogokomponentnykh sredakh)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 1, pp 46-49 (USSR)

ABSTRACT: Experiments have shown that the effect of sonic waves in a composite medium (liquid and gas, solid and gas or solid, liquid and gas) is different from that in a homogeneous medium (Refs.1-5). However, this subject requires still further investigations. In this work some parameters of shock waves are considered. The physical state of a medium can be defined by the volume compression p expressed as in Eqs.(1-3), where 1 - gas, 2 - liquid, 3 - solid, α - content, ρ - density, c - velocity of sound, k - isentropy. The equation of the physical state of a composite medium can be expressed as Eq.(4). The velocity of sound c can be found from Eq.(5). Frontal velocity of shock wave D - Eq.(6), and the partial velocity on the frontal shock wave, u , - from Eq.(7). The velocity of sound in 3-component medium at $p = p_o$ is found (Eq.(8)). The data for the medium: air-water-quartz for

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Shock Waves in a Composite Medium

$p = 1$ kg/cm^2 is shown in the upper table, p 47. The lower table gives the velocity of sound computed from Eq.(8) (c_{12} - air, water, c_{123} - air, water, quartz, m/sec). It can be seen from the tables how c decreases with an increase of gas content, which can also be calculated from:

$$c = \sqrt{\frac{dp}{d\rho}} = \frac{1}{\rho\sqrt{-dV/dp}} \quad .$$

A similar table for water-quartz is shown on p 48. Figs.1 and 2 illustrate the frontal velocity of the shock wave, calculated from Eq.(6) for air-water and air-water-quartz respectively. The mean experimental values of the frontal

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Shock Waves in a Composite Medium

velocity D of the shock wave in air-water-quartz for porosity 0.35-0.4 for various contents of air α and various p kg/cm^2 are shown in the table on p 49. There are 4 tables, 2 figures and 7 references; all of the references are Soviet.

SUBMITTED: September 9, 1958.

SOV/179-59-2-2/40

AUTHORS: Lyakhov, G. M., Polyakova, N. I. (Moscow)

TITLE: An Approximate Method of Calculation of a Shock Wave and Its Effect (Priblizhennyy metod rascheta udarnykh voln i ikh vzaimodeystviye)

PERIODICAL: Izvestiya Akademii nauk SSSR OTN, Mekhanika i mashinostroyeniye, 1959, Nr 2, pp 13-18 (USSR)

ABSTRACT: The usual method of determining the propagation of a shock wave, based on a system of 3 quasi-linear equations (Eqs 1.1) can only be applied when the conditions at the front of the wave are known. To avoid this difficulty the authors describe a method where the curve defining the compression $p = p(\rho)$ is assumed as composed of a series of straight lines (Eq 1.2). This approximate method of calculation gives a negligible error when the pressure at the front does not exceed 2 to 3 kg/cm^2. In this case the wave equation can be defined as Eq (1.7) and its solution as Eq (1.8), where F_1, F_2 - arbitrary functions, A - velocity of propagation (in the coordinates h, t) corresponding to the acoustic impedance of the medium ρc for a given sector of an approximate isentropy. The propagation of the plane shock wave, the equation of which is given in terms of $p = p(V)$, is

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An Approximate Method of Calculation of a Shock Wave and Its Effect

defined for a cross-section of the medium and based on the conditions Eq (2.1) (p_0 , ρ_0 - parameters of medium ahead of the front; p, ρ, D, u - at the front). For the curve p = p(V) (broken line in Fig 1), the velocity of the front can be defined as Eq (2.4) and the pressure as Eq (2.6). The motion between the cross-section h = 0 and the front is defined by Eq (1.8). If the cross-sections are sufficiently small, then the calculation can be performed separately for every region as illustrated in Fig 2, i.e. the formulae (2.9) to (2.11) will correspond to regions and Eqs (2.12) and (2.13) to segments, e.g. for the region 3 the corresponding equations will be (2.14) and (2.15). Similarly, the calculation is performed for every region. The reflection of the shock plane wave from a rigid obstruction causes an equilibrium of the entropy in various regions of the medium. This can be expressed by the Eq (3.1) describing the conditions at the front of a reflected wave, where 1 and 2 denote the incident and reflected wave respectively. The

An Approximate Method of Calculation of a Shock Wave and Its Effect

pressure affecting the obstruction can be calculated from Eq (3.2). The differential equation of motion of the front can be shown as Eq (3.9) and its solution as Eq (3.10), which defines the front line as a curve of the second order. L. I. Sedov and K. P. Stanyukovich are thanked for their advice. There are 2 figures and 3 Soviet references.

SUBMITTED: September 9, 1958.

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SOV/179-59-5-11/41

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AUTHOR: Lyakhov, G.M. (Moscow)

TITLE: Reflection and Refraction of Shock Waves in Multicomponent Media and in Water

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 5, pp 58-63 (USSR)

ABSTRACT: The paper is a continuation of previous work (Ref 1). A plane shock wave is propagated through the least compressible of two adjacent multicomponent systems with different compositions. Using the method of Kochin, N.Ye. (Ref 2), the characteristics of the wave produced in the second medium are calculated. An equation is given for the sound velocity in a three-component mixture containing gaseous, liquid and solid components in terms of the amount, density, sound velocity and isentropy coefficients of the components. An equation is also given for the particle velocity in the wave-front and the effect of composition of the medium on this velocity is shown graphically. Experimental values for the pressure in the incident and excited waves, measured with a piezoelectric gauge and cathode-ray oscillograph, are recorded for two

Card 1/2

Reflection and Refraction of Shock Waves in Multicomponent Media and in Water

air-water-quartz systems. The experimental and theoretical values are in approximate agreement. The case is also considered of a shock wave propagated through the more compressible medium. In this case, there is a reflected wave and a wave excited in the second medium. The particle velocities in the wave-front as affected by composition are also shown graphically for different compositions of the medium. The reflection and refraction of the shock waves by a boundary in the medium, and by a solid object, are also discussed. A few experimental measurements of pressure and wave-front velocity are given, again agreeing approximately with theory. Thanks are expressed to M.A.Lavrent'yev and G.I.Pokrovskiy for their interest in the paper. There are 4 figures, 2 tables and 6 Soviet references.

SUBMITTED: November 26, 1958

Card 2/2

S/179/60/000/03/015/039
E081/E441

AUTHORS: Lyakhov, G.M. and Polyakova, N.I. (Moscow)

TITLE: Propagation and Interaction of Compression and Rarefaction Waves in Elasto-Plastic Media

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, Nr 3, pp 99-108 (USSR)

ABSTRACT: The paper is a continuation of previous work (Ref 8). A medium is considered in which loading and unloading take place elastically up to some stress σ_s, but for stresses $\sigma > \sigma_s$ the law is different (Fig 1). If the stress $\sigma_r > \sigma_s$ there is a residual deformation ε, the magnitude of which depends on the maximum stress σ_r attained in compression. The theory is developed in terms of the variables given in the first equation, p 99, where V is the volume and ρ the density. The Lagrangian system of coordinates h, t (h = mass of body included between the initial section and the section under discussion, t = time) is used as in Ref 8. Analysis of the propagation of plane waves shows that if the pressure in the initial section (h = 0) rises

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Propagation and Interaction of Compression and Rarefaction Waves in Elasto-Plastic Media

instantaneously to $p_m(p_k > p_m > p_s)$ and then falls according to a given law $p = p(t)$, the waves are propagated on two fronts (Fig 2). The first, corresponding to the jump in pressure from $p_c = 0$ to p_s, moves with velocity A_c and the second (denoted by S), corresponding to the jump in pressure from p_s to the maximum, moves with velocity A_1. The propagation in the regions numbered 1 to 7 in Fig 2 is considered in detail and the change of pressure with time in certain sections of the medium is plotted in Fig 3. The reflection and refraction of waves from a boundary T (Fig 4) is considered and the conditions in the regions A, B, C and 1 - 9 (Fig 4) is analysed in detail. The relationship $p = p(h)$ for the times denoted by t_1 and t_2 (Fig 4) is shown in Fig 5. Thanks are expressed to B.A.Olisov, Kh.A.Rakhmatulin and L.I.Sedov for discussion of results. There are

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E081/E441

Propagation and Interaction of Compression and Rarefaction Waves in Elasto-Plastic Media

--- 6 figures and 8 references, 6 of which are Soviet and 2 English.

SUBMITTED: August 31, 1959

Card 3/3

VC

ZVEREV, I.N.; LYAKHOV, G.M. (Moskva)

Experimental test of the equation for the state of water-saturated ground. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.4:185-186 Jl-Ag '60. (MIRA 13:7)
(Soil--Moisture)

LYAKHOV, G.M. (Moskva)

Shock waves in the ground and liquefaction of water-saturated sand. PMTF no.1:38-46 Ja - F '61. (MIRA 14:6)
(Shock waves) (Soil mechanics)

LYAKHOV, G.M. (Moskva)

Interaction of shock waves in water-saturated ground and in water. Izv. AN SSSR. Otd. tekh.nauk.Mekh.i mashinostr. no. 1155-158 Ja-F '61. (MIRA 14:2)
(Shock waves)

PHASE I BOOK EXPLOITATION SOV/6306

Lyakhov, Georgiy Mikhaylovich, Doctor of Technical Sciences, and Georgiy Iosifovich Pokrovskiy, Professor, Doctor of Technical Sciences.

Vzryvnyye volny v gruntakh (Explosion Waves in Grounds) Moscow, Gosgortekhizdat, 1962. 101 p. Errata slip inserted. 3000 copies printed.

Ed. of Publishing House: I. K. Kit; Tech. Ed.: G. M. Il'inskaya.

PURPOSE: The book is intended for engineers and research workers dealing with blasting operations and the problems connected with the theory of explosion waves. It may also be used by graduate students specializing in this field.

COVERAGE: This book presents briefly the fundamental principles of the theory of the waves which develop during blasting charges of explosive materials. It summarizes the results of experimental

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investigation of maximum pressure, impulse, time of action, and other parameters of explosions. Dependence of these values on the physical and mechanical properties of the ground was determined. The cause of sharp differences in the value of wave parameters in different grounds has been established. It was found that these differences are due, in the first place, to the fluctuations of water and air content in pores. Even the smallest fluctuations of these factors may change the wave parameters hundreds of times. The results obtained make it possible to study more thoroughly the general effect of explosions, to increase the efficiency of blasting operations, and to apply better safety measures. There are 67 references, of which 61 are Soviet.

TABLE OF CONTENTS:

Explosion Waves in Grounds SOV/6306

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AVAILABLE: Library of Congress

SUBJECT: Mining Engineering

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MM/jmo/bc
5/3/63

39225
S/207/62/000/003/008/016
I028/I228

12.6000

AUTHOR: Lyakhov, G. M. (Moscow)

TITLE: Directed throwing of bodies by explosion products

PERIODICAL: Zhurnsl prikladnoi mekhaniky i tekhnicheskoy fiziki, no. 3, 1962, 44–52

TEXT: The article investigates, both experimentally and theoretically, the explosion of a shaped charge of small cavity depth. It is established that this esplosion produces a directed jet formed by the patricles of the charge liner. The mechanism of the explosion of a layer of explosive of uniform thickness l, mass m_3, and radius $R \gg l$, bounded by two plates of masses m_1 and m_2, is analysed mathematically on the basis of the following assumptions, checked experimentally by means of a series of X-ray shots of the development of the explosion: a) the charge liner can be treated as an ideal incompressible liquid; b) the influence of the propagation of the rarefaction wave inside the charge on the motion of the central elements can be neglected; c) the detonation is instantaneous at every point, although not simultaneous at all points; d) air resistance during the accelerated motion of the liner particles can be neglected. Three particular cases are examined: $m_1 = m_2$, $m_2 = \infty$, $m_2 = 0$. The quantitative connection between the charge parameters and the jet characteristics is established, and the results obtained checked experimentally. It is found that the most advantageous energetically is a concave charge of $l \ll R$. L. G. Dolgov, N. K. Kuz'min, and B. Z. Yudovskiy are mentioned as

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Directed throwing of...

S/207/62/000/003/008/016
I028/I228

having taken part in the design of the experiments. The author thanks G. I. Pokrovskiy, N. I. Polyakov and L. I. Sedov for their comments. There are 16 figures.

PRESENTED: August 5, 1961

Card 2/2

LYAKHOV, G.M. (Moskva); POLYAKOVA, N.I. (Moskva)

Interaction between a shock wave and a displacive barrier in an elastic-plastic medium. PMTF no.5:89-95 S-O '62.
(MIRA 16:1)

(Shock waves) (Deformations (Mechanics))

S/207/63/000/001/017/028
E191/E435

AUTHOR: Lyakhov, G.M. (Moscow)

TITLE: On the compressibility of soils under dynamic loads

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki. no.1, 1963, 121-124

TEXT: An experimental investigation is reported concerned with the relation between the rate of propagation of an explosion wave front and the maximum pressure in sandy soils of different humidity. The rate of propagation was studied as a function of pressure and of the air content of the soil and the pressure as a function of the deformation and the air content. The soil condition is defined by the air, water and solid contents by volume and the densities of the three components. The porosity and mean density are defined. Soils with a porosity of about 0.4 and an air content below 10% are moisture saturated. On the basis of earlier work of the author (Izv. AN SSSR, OTN, Mekhanika i mashinostroyeniye, no.1, 1959) and more recent measurements taken with piezoelectric and strain gage detectors, numerical values are given for the above variables obtained in detonating explosive charges between 1.6 and 1000 kg. From these data, the

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compressibility diagram can be constructed, namely the pressure as a function of density and of deformation. The plotted relationships reveal two compression mechanisms. The short duration, of dynamic loads, does not permit a redistribution of air and water in the pores or their squeezing out of the soil, so that compressibility is determined by the laws of three component substances in the saturated state and by the compressibility of the solid skeleton in the nonsaturated state. In sandy soils, owing to the large grain size, adhesion depends on capillary and not on molecular forces. These relations lead to the existence of two minima and two maxima over the range of different air contents. Corresponding variations are observed in the plot of the pressure against the deformation. The differences between sandy and clay soils are discussed. The conception of dynamic compressibility depends, strictly speaking, on the duration of the dynamic load but experiments show that small and large explosive charges produce the same phenomena. There are 3 figures.

SUBMITTED: September 14, 1962

Card 2/2

ORLENKO, L.P.; LYAKHOV, G.M., doktor tekhn. nauk, retsenzent;
BUMSHTEYN, S.I., inzh., red.

[Behavior of materials subjected to intense dynamic loading] Povedenie materialov pri intensivnykh dinamicheskikh nagruzkakh. Moskva, Mashinostroenie, 1964. 166 p.
(MIRA 17:12)

LYAKHOV, G. M.

Lyakhov, G. M. "Lacustrine-swamp clay and its use in the brick industry," Sbornik rabot po mest. stroit. materialam (Upr. prom-sti stroymaterialov i stroydetaley Mosgorispolkoma, Nauch.-issled. i eksperim. stantsiya), Issue 1, 1948, p. 3-17

SO: U-3264, 10 April 53 (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

LYAKHOV, G. M.

LYAKHOV, G. M. -- "System of Mining of Thick Steeply Dipping Coal Beds in the Kuzbas by Means of Sloping Layers With Rubble." Sub 25 Apr 52, Inst of Mining, Acad Sci USSR. (Dissertation for the Degree of Candidate in Technical Sciences).

SO: Vechernaya Moskva, January-December 1952

LYAKHOV, G.M.; CHERKASHIN, V.A., otvetstvennyy redaktor; CHVANOV, V.G., redaktor; ALEKSEYEVA, T.V., tekhnicheskiy redaktor.

[Quarrying gravel and sand deposits] Razrabotka graviinykh i peshchanykh mestorozhdenii. Moskva, Izd-vo Akad. nauk SSSR, 1954. 223 p. (MLRA 8:1)
(Quarries and quarrying) (Gravel) (Sand)

LYAKHOV, G.M.

SUDOPLATOV, A.P.; PARUSIMOV, V.F.; LYAKHOV, G.M.; TEPLITSKIY, G.A.

Preparation of the excavating areas in filled stope mining of Kuznets Basin steeply pitching seams. Trudy Inst.gor.dela 1:7-16 '54. (MLRA 7:12)
(Kuznets Basin--Coal mines and mining)

LYAKHOV, G. M.

Reciprocal drive layout in thick, steeply pitching coal seams of the Kuznets Basin. Trudy Inst.gor.deal 1:17-22 '54.
(Kuznets Basin--Coal mines and mining) (MLRA 7:12)

LYAKHOV, Georgiy Mironovich; ROZHDESTVENSKIY, Nikolay Dmitriyevich; KAZAKOV, B.Ye., redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor; ANDREYEV, G.G., tekhnicheskiy redaktor

[Mining] Gornoe delo. Moskva, Ugletekhizdat, 1955. 147 p. (Mining engineering)

FD-2755

USSR/Mining - Coal - Conference

Card 1/1 Pub 41 - 16/16

Author : Lyakhov, G. M.

Title : Scientific investigation on mining the thick, steeply inclined, coal seams with filling in the Kuzbass

Periodical : Izv. AN SSSR, Otd. Tekh. Nauk 5, 158-160, May 1955

Abstract : Describes how five hundred mining engineers and students from all parts of the USSR explored the possibility of fill-mining the steeply inclined coal seams of Kuzbass in a conference at Kemerova on 21-24 February 1955. The aim was to increase coal productivity per unit of labor and to decrease the hazards of mine explosions. Presents short resumes of reports read at the convention.

LYAKHOV G.M.

USSR/ Mining - Conferences

Card 1/1 Pub. 124 - 20/32

Authors : Lyakhov, G. M., Cand. of Techn. Sc.

Title : Improvement of coal mining systems and methods

Periodical : Vest. AN SSSR 25/6, 93-95, June 1955

Abstract : Notes are presented from the coordinated special meeting called by the Ministry of Coal Industry and The Academy of Sciences, USSR (held at the Coal Mining Institute in Kemerove, February 21-24, 1955), where the improvement of coal mining systems and methods in the USSR was the major topic of discussion.

Institution : .....

Submitted : .....

LYAKHOV, G.M.

19. A NEW METHOD OF PREPARING WINNING AREAS (IN COAL MINES). Lyakhov, G.M. (Vestn. Akad. Nauk SSSR (J. Acad. Sci. U.S.S.R.), July 1956, vol. 26, 43, 44). The method is applicable to thick seams, which are shown in a diagram as dipping at about 75° to the horizontal. In the present method a rectangular area of the seam is prepared for winning by driving roads round it through the seam. The coal round the road is left in position to protect the road, is never mined and is liable to spontaneous combustion later. In a particularly good seam, in the Prokop'evski-Kiselevsk area of Kuzbass, the loss of coal is 19 to 32%. The improvement now suggested consists in removing during preparation the coal which is now left behind and replacing it with concrete.

LYAKHOV, G.M.

Conference on methods of investigating problems of underground mining of coal deposits. Ugol' 31 no.12:43 D '56. (MLRA 10:2)
(Coal mines and mining)

LYAKHOV, Georgiy Mironovich; ROZHDESTVENSKIY, Nikolay Dmitriyevich [deceased]; SHUSHKOVSKAYA, Ye.L., red. izd-va; VINOGRADOVA, G.V., red. izd-va; NADEINSKAYA, A.A., tekhn. red.

[Minimum engineering requirements for mining] Tekhminimum po gornomu delu. Izd.2., perer. i dop. Moskva, Ugletekhizdat, 1958. 207 p. (Coal mines and mining) (MIRA 11:7)

AUTHOR: Lyakhov, G. M., Candidate of Technical Sciences 3o-58-4-23/44

TITLE: Improving the Exploitation System in Very Thick Coal Beds (Sovershenstvovaniye sistem razrabotki moshchnykh ugol'nykh plastov). Conference at Prokop'yevsk (Soveshchaniye v Prokop'yevske)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 4, pp. 105-107 (USSR)

ABSTRACT: Many scientific research and planning organizations as well as individual specialists deal with the problem of improving of existing and the invention of new effective conveying systems. The scientific-technical conference called jointly by the Mining Institute of the AS USSR and other organizations to Prokop'yevsk on January 2o-22 served for the discussion of results achieved in this field. Prokop'yevsk is the center of the Prokop'yevsk-Kiselevskiy region where the mightiest deposits of rich coal layers are situated and where most of the experience in its conveying was collected. The representatives at this

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conference were: representatives of the academic and branch-scientific research institutes, mining institutes and the Moscow faculties, as well as those from Leningrad, Tomsk, Sverdlovsk, Kemerovo, Stalinsk, Tbilissi and others as well as the leading managers of the coal trusts. G. A. Bystrov, director of the Kuzbassugol' Kombinat opened the conference. Reports were delivered by:

1) A. P. Sudoplatov (Mining Institute of the AS USSR) on the principal directions for the perfection of existing as well as for the invention of new conveying systems.
2) V. F. Parusimov, on problems connected with the conveying of mighty coal layers.
3) P. Z. Zwyagin (All-Union Coal Institute) on the perfection of the conveying systems.
4) A. D. Panov, on a number of variants of conveying systems suggested by the All-Union Coal Institute.
5) S. I. Dmitriyev, on the most important research works

of the Coal Institute in this field.

6) A. S. Litvinenko (Chief Engineer of the Stalin Mine) on the conveying systems used in this mine.

7) A. A. Surnachev (Chief Engineer of the Prokop'yevsk--ugol' trust) on the conveying systems used there.

8) A. A. Mogilevskiy (Chief Engineer of the State Institute for the Design of Coal Mining Machinery) on the directions of the work of this organization .

9) A. A. Borisov (Leningrad Mining Institute) on the application of conveying systems.

1o) N. V. Marevich (Mining Institute of the Siberian
V. T. Dzyubenko Branch of the AS USSR) on their experience in the use of shield conveying systems.

11) K. P. Voronov (Director of the Kuznetsk Mining District) criticized the backward

Improving the Exploitation System in Very Thick Coal Beds 3o-58-4-23/44
Conference at Prokop'yevsk

conveying systems from the viewpoint of security and loss of manpower.

12) N. V. Mel'nikov on the usefulness of applying a
B. A. Simkin conveying system.

In the decision of this conference it was mentioned that the introduction of the suggested measures could bring about an increase of the capacity of coal conveying of 1,5 times.

1. Coal—Production 2. Conveyors—Applications
3. Industrial production—USSR

Card 4/4

LYAKHOV, G.M., kand.tekhn.nauk

Scientific and technical conference in the Kuznetsk Basin. Ugol' 33 no.4:43-44 Ap '58. (MIRA 11:4)
(Kuznetsk Basin--Coal mines and mining)

SOV/30-59-3-43/61

18(5)

TITLE: Lyakhov, G. M., Candidate of Technical Sciences

TITLE: Work Performed by the Institute of Mining (Raboty Instituta gornogo dela)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 3, pp 116 - 117 (USSR)

ABSTRACT: From December 24 to December 26, 1958 a conference was held at the Institut gornogo dela Akademii nauk SSSR (Mining Institute of the Academy of Sciences, USSR) of the Uchenyy sovet (Scientific Council), which had been called on the occasion of the 20th anniversary of the founding of the Institute. The conference was attended by more than 500 representatives of scientific and public organizations of various kinds. 27 lectures were delivered. The conference was opened by the director of the Institute, A. A. Skochinskiy. The following reports were further delivered: L. D. Shevyakov dwelt in detail on the control figures concerning the development of mining during the time from 1959 - 1965; M. I. Agoshkov analyzed the existing methods and criteria of parameter determination in mining; N. V. Mel'nikov spoke about

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problems of perfectioning the methods of utilizing the yields of open-work mining; G. P. Demidyuk, and B. D. Rossi mentioned the results obtained with explosives of simple composition used in open-work mining; V. S. Kravchenko described the high-frequency contact method for the crushing of solid iron ores; A. O. Spivakovskiy reported on investigations in the field of hydraulic and pneumatic transport; G. I. Man'kovskiy spoke about the freezing method of rocks; I. N. Plaksin spoke about scientific methods in the development of the preparation of soil products. It was decreed that the technique of utilizing the yield of coal- and ore-mines be further improved, and that coal- and ore-mining be automated to the greatest possible extent. Also the quality of coal and ores as well as the working methods were described as needing improvement.

KOZHEVIN, Vladimir Grigor'yevich; LYAKHOV, G.M., otv.red.; ZHUKOV, V.V., red.izd-va; SHKLYAR, S.Ya., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Mining the axial line areas of coal deposit seams] Razrabotka zamkovykh chastei skladok ugol'nykh plastov. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 67 p. (MIRA 14:3)

(Coal geology) (Coal mines and mining)

ZABOLOTNYY, Ivan Prokof'yevich; POLONSKIY, Mikhail Isaakovich; PAVLOV, K.V., kand.tekhn.nauk, retsenzent; LYAKHOV, G.M., kand.tekhn.nauk, retsenzent; YERMALENKO, M.I., gornyy inzh., retsenzent; SOSEDOV, O.O., gornyy inzhener; AVSEYENOK, A.F., otv.red.; SIPYAGINA, Z.A., red.izd-va; ISLENT'YEVA, tekhn.red.; PROZOROVSKAYA, tekhn.red.

[Mining engineering; for miners of underground integrated brigades] Gornorudnoe delo; dlia gornorabochikh podzemnykh kompleksnykh brigad. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 384 p. (MIRA 13:3)

(Mining engineering)

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S/207/62/000/006/022/025
E031/E492

AUTHORS: Lyakhov, G.M., Narozhnaya, Z.V. (Moscow)

TITLE: Plane blast waves in soils

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no.6, 1962, 124-127

TEXT: The waves were produced by placing charges on the surface of the soil and sprinkling the charges with powdered soil. The experiments showed that the intensity of the waves increased with the thickness of this covering, but beyond a certain value thickness had no effect. Two regions of unsaturated sandy soil were chosen, the composition of the sand in one of the regions being given. The experiments took place in dry and rainy weather with moisture contents of the sand: w = 5 - 7% and 10 - 12% in one region and w = 2 - 4% in the other. Tensometers and piezoelectric pick-ups were used to measure the parameters of the waves. Oscillograms were taken of the normal pressure in the first region at small moisture content for distances from the surface varying from 0.5 to 1.3 m which showed the pressure varying from 0.6 to 2.5 (charge density 0.12) kg/cm^2 and distances 0.5 to 2.0 m with pressure varying from 0.8 to 11.0 (charge density 0.25) kg/cm^2. The waves cease to be shock waves for a pressure of 3 to 5 kg/cm^2. The

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velocity of propagation of the wave front and the maximum pressure were also measured. Both velocities increase with the moisture content. The value of the maximum pressure also increases with the moisture content and an approximate expression is given establishing this variation. Experiments were also undertaken to determine the parameters of spherical waves due to point charges. In the plane waves the normal pressure increased with the moisture content and the corresponding relations were given. Experiments showed that the ratio of side to normal pressure is practically constant for both plane and spherical waves in the interval of pressure studied. A comparison is made of some of the results for water saturated soil. The very much smaller values of the normal pressure and velocity of propagation of the wave front is explained by the unsaturated character of the soil which remains compressible at larger moisture contents than saturated soil. There are 7 figures.

SUBMITTED: May 18, 1962

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